

What is claimed is:

- 1 1. A method for processing seismic data comprising:
 - 2 (a) comparing data in a window comprising a portion of a first data segment
 - 3 with data in a corresponding window comprising a portion of a second
 - 4 data segment, wherein said first data segment and said second data
 - 5 segment are selected from a plurality of data segments acquired using a
 - 6 plurality of seismic sweeps; and
 - 7 (b) changing said data in a window using said data in a corresponding window
 - 8 based on said comparison.
- 1 2. The method of claim 1, wherein changing said data in a window further comprises
- 2 replacing said data in a window using said data in a corresponding window.
- 1 3. The method of claim 1 further comprising stacking said plurality of data segments
- 2 to form a new data segment.
- 1 4. The method of claim 3 further comprising extracting a listen time from said new
- 2 data segment.
- 1 5. The method of claim 1 wherein said plurality of data segments each comprise a
- 2 recorded data and a listen time.

- 1 6. The method of claim 1 further comprising phase shifting said second data
2 segment to a phase corresponding to said first data segment.
- 1 7. The method of claim 1 wherein said second data segment comprises a
2 combination of a plurality of said plurality of data segments.
- 1 8. The method of claim 7 wherein said combination comprises combining said
2 plurality of said plurality of data segments using at least one of: i) an arithmetic
3 average, ii) a median average, and iii) a weighted average.
- 1 9. The method of claim 1 further comprising using RMS values for comparing said
2 data in a window of a first data segment with said data in a window of a second
3 data segment.
- 1 10. The method of claim 1 wherein a listen time data segment is combined with an
2 initial data segment by time series addition.